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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/592,148	06/12/2000	Tae Joon Park	0465-1990PUS1	5121
2292 7590 06/25/2010 BIRCH STEWART KOLASCH & BIRCH PO BOX 747 FALLS CHURCH, VA 22040-0747				
EXAMINER SHERR, CRISTINA O				
ART UNIT 3685		PAPER NUMBER		
NOTIFICATION DATE 06/25/2010		DELIVERY MODE ELECTRONIC		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

# Office Action Summary

**Application No.**

09/592,148

**Applicant(s)**

PARK, TAE JOON

**Examiner**

CRISTINA SHERR

**Art Unit**

3685

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 15 March 2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 132-155 is/are pending in the application.
- 4a) Of the above claim(s) 132-140 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 141-155 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Informational Statement(s) (PTO/SF/42)
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date: \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_
- Paper No(s)/Mail Date: 1/19/201, 4/13/2010, 6/17/2010.

### **DETAILED ACTION**

1. This Office Action is in response to Applicant's Amendment filed March 15, 2010. Claims 132-155 are pending in this case. Claims 141, 143, 144, 145, 148-150, and 152-155 are currently amended. Claims 132-140 were previously withdrawn. Accordingly, claims 141-155 are under examination.

#### ***Information Disclosure Statement***

2. The information disclosure statements (IDS) submitted on January 19, 2010, April 13, 2010, and June 17, 2010 are in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statements are being considered by the examiner.

#### ***Response to Arguments***

3. Applicant's arguments, see Remarks, filed March 15, 2010, with respect to the section 101 rejections of claims 150-155, as currently amended, have been fully considered and are persuasive. The section 101 rejection of claims 150-155 has been withdrawn.

4. Applicant's arguments filed March 15, 2010, regarding the section 103 rejections of the claims, as currently amended, have been fully considered but they are not persuasive.

5. Applicant argues, regarding independent claims 141 and 150, as currently amended, that nothing in the cited prior art teaches, discloses, or suggests "a descrambler to descramble the first data block and one or more succeeding data blocks among the plurality of data blocks based on the control data included in the first data

block, each of the scrambled data units including scrambled digital video data or scrambled digital audio data, wherein the same descrambler is used to descramble both the scrambled digital video data and the scrambled digital audio data".

6. Examiner respectfully disagrees. Roth discloses

"Each frame comprises 728 bits and they are transmitted with a speed of 1000 frames per second, i.e. a total bit rate of 728 kbit/s. Each frame begins with a frame alignment word FAW consisting of eight bits. Thereafter, five control bits C0-C4 are transmitted, which for instance determines the type of information being transmitted. Then there is 11 additional data AD bits AD0-AD10, which may be used for transmitting optional information. In accordance with the present invention preferably the first bit AD0 is utilized to transmit a control word and the cryptosyn-chronization word" (col 2 ln 33-44). Further, "it is possible to let the same control word be valid during an extended time" (col 4 ln 15-19).

Bourel discloses

"The two video and sound parts are completely independent and the pseudo-random generators 25 and 28 are distinct generators. Nevertheless, a single device 27 for decrypting and restoring the control word received from the receiver section 26 is present for both the sound signal and the video signal." (col 5 ln 46-52)

7. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the system of Roth to include detecting the control data based on a signal associated with the position of the control data within the first sub data unit as disclosed in Bourel in order to allow for the use of a single control word for both an audio and video signal.

***Claim Rejections - 35 USC § 101***

8. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

9. Claims 141-149 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

10. Claim 141 recite a computer program only. "Computer programs claimed as computer listings per se, i.e., the descriptions or expressions of the programs, are not physical 'things.' They are neither computer components nor statutory processes, as they are not 'acts' being performed." MPEP §2106.01 I. Because the claim recites only abstractions that are neither "things" nor "acts," the claim is not within one of the four statutory classes of invention. Because the claim is not within one of the four statutory classes of invention, the claim is

11. rejected under 35 U.S.C. §101.

12. Therefore, independent claim 141 and its dependent claims 142-149 are rejected under 35 U.S.C. §101.

***Claim Rejections - 35 USC § 112***

13. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

14. Claim 141 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one

skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

15. Note that the original patent (page 10, par 1-5 of detailed description) refers only to tapes, whereas claim 141, as newly amended, appears to be broadening the specification beyond tapes.

***Claim Rejections - 35 USC § 102***

16. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

17. Claims 150-155, as newly amended, are rejected under 35 U.S.C. 102(b) as being anticipated by Carlson (US 4,420,829).

18. Carlson discloses a medium storing instructions for use by a processor of a computer. (col 19 ln 50-col 20 ln 35). In the instant application claims 150-155 recite instructions, which, as claimed are not functionally related from the medium, and thus do not further distinguish claims 150-155 from the cited prior art. *In re Gulack*, 217 USPQ 401 (Fed. Cir. 1983), *In re Ngai*, 70 USPQ2d (Fed. Cir. 2004), *In re Lowry*, 32 USPQ2d 1031 (Fed. Cir. 1994); MPEP 2106.01 II

***Claim Rejections - 35 USC § 103***

19. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

20. Claims 141-146, and 150-154 are rejected under 35 U.S.C. 103(a) as being unpatentable over Roth et al (US 5,243,650) in view of Bourel (US 5,530,756).

21. Regarding claims 141 and 150 -

22. Roth discloses an apparatus for processing digital data, comprising:

a receiving part to receive digital data, the received digital data including a plurality of data blocks, each of the data blocks having a header and a scrambled data unit, at least the header in a first data block among the plurality of data blocks including control data, the control data being used for controlling a parameter of a scrambling/descrambling operation and the same control data being used for one or more succeeding scrambled data units; (e.g. fig. 2; col 1:57-60; col 2:36-47, 55-57; col 3:2-4, 30-38; col 3:66-4:6; col 4:15-20)

a descrambler to descramble the first data block and one or more succeeding data blocks among the plurality of data blocks based on the control data included in the first data block, each of the scrambled data units including scrambled digital video data or scrambled digital audio data, wherein the same descrambler is used to descramble both the scrambled digital video data and the scrambled digital audio data. (e.g. fig 4; col 3:30-38; col 4:15-29).

23. Roth does not disclose wherein the same descrambler is used to descramble both the scrambled digital video data and the scrambled digital audio data; and a

controller, operatively coupled to the descrambler, to control the descrambling operation by the descrambler. Bourel, however, does, at col 5 ln 46-63.

24. Roth does not disclose wherein each of the one or more scrambled data units and the one or more succeeding data units including scrambled digital video data or scrambled digital audio data. Bourel, however, does at col 4 ln 14-25.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the system of Roth to include detecting the control data based on a signal associated with the position of the control data within the first sub data unit as disclosed in Bourel in order to allow for the use of a single control word for both an audio and video signal.

25. Regarding claims 142 and 151 –

26. Roth discloses wherein the control data is used to initialize a descrambler for performing the descrambling operation, and wherein the descrambling step includes initializing the descrambler based on the control data. (col 3:66-4:29).

27. Regarding claims 143 and 152 –

Roth does not specifically disclose wherein the descrambler is configured to descramble each scrambled data unit: except for the header: in each of the plurality of data blocks.

28. Bourel, however, does disclose wherein the descrambler is configured to descramble each scrambled data unit: except for the header: in each of the plurality of data blocks. (e.g. col 5 ln 46- col 6 ln 5).

29. Regarding claims 144 and 153-



30. Roth discloses a method wherein the control data is changed or refreshed periodically, and wherein the controller is configured to control the descrambler to descramble the one or more succeeding scrambled data units based on the changed or refreshed control data. (col 3 In 66- col 4 In 29).
31. Regarding claims 145 and 154 -
32. Roth does not specifically disclose wherein at least two of the scrambled data units and the header including the control data comprise one data group, the header including the control data, and wherein the apparatus further comprises a demultiplexer to separate the at least two scrambled data units and the header from one data group before the descrambling. Bourel, however, does. (e.g. col 5 In 46- col 6 In 5).
33. Regarding claim 146 -
34. Bourel discloses wherein the data group includes at least two packets, at least first packet including the header, and wherein the demultiplexing step demultiplexes the at least two packets from one data group. (e.g. col 5 In 63- col 6 In 5).
35. Claims 147--149, and 155 are rejected under 35 U.S.C. 103(a) as being unpatentable over Roth et al (US 5,243,650) in view of Bourel (US 5,530,756), further in view of Kanota et al (US 5,418,853).
36. Roth and Bourel disclose a discussed above.
37. Regarding claims 147, 148, and 155 -
38. Roth and Bourel do not disclose copy prevention information, the copy prevention information including one of current generation information and allowable generation information, the current generation information indicating a number of times

the digital data has been copied and the allowable generation information indicating a number of permitted copies of the digital data, and wherein the method further comprises: performing a copy prevention function such that copying of digital data is not permitted if the copy prevention information indicates that copying of digital data is not permitted. Kanota, however, does, at fig 2; col 4 ln 61-col 5 ln 14.

39. It would have been obvious to one of ordinary skill in the art to combine Bourel, Roth and Kanota in order to include detecting the control data based on a signal associated with the position of the control data within the first sub data unit as disclosed in Bourel in order to allow for the use of a single control word for both an audio and video signal when the signal are not synchronized and further to combine with Kanota since the encryption of software or digital data in Roth is equivalent to copy control as in Kanota.

40. Regarding claim 149 –

41. Roth and Bourel do not disclose wherein the descrambling step is performed only if the copy prevention information indicates that copying of digital data is permitted.

Kanota, however, does, at, e.g., col 5 ln 1-15.

### ***Conclusion***

42. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

43. Walker et al (US 5,054,064) disclose a video control system for recorded programs.

44. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

45. A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

46. Any inquiry concerning this communication or earlier communications from the examiner should be directed to CRISTINA SHERR whose telephone number is (571)272-6711. The examiner can normally be reached on 8:30-5:00 Monday through Friday.

47. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Calvin L. Hewitt, II can be reached on (571)272-6709. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

48. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

CRISTINA OWEN SHERR  
Examiner  
Art Unit 3685

/Calvin L Hewitt II/  
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